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The Story-Hamilton Artesian Area

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SEDIMENTATION OF THE CEDAR VALLEY LIMESTONE

A. C. TESTER

Exposures of the Cedar Valley limestone adjacent to Iowa City show a wide variation from the conditions usually described for the disposition of limestones. Existing descriptions of the Cedar Valley limestone make little mention of the irregular lamination, the contemporaneous structures of the beds, the cross bedding, or the meaning of the lithographic zones in the formation. Such structures indicate a condition of very shallow regularly agitated water, with periods of actual exposure above water level.

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ICE CAVES

JOHN E. SMITH

Ice caves are found in Eastern Oregon, Idaho, Pennsylvania, Iowa and in other states. The caves are very long and narrow and have relatively small openings. Long, cold winters seem to be an essential also in most of them.

The cold, heavy air fills the caves, and condenses the warmer, moist air below the freezing point, forming ice as the two diffuse slowly at the entrance.

If the air chamber is large enough and the cave opening small enough, the diffusion and ice-forming will continue throughout the year, as in the cave in Bixby State Park. If not there will be an ice-free period as in the ice-cave near Decorah.

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THE STORY-HAMILTON ARTESIAN AREA

JOHN E. SMITH

This area extends along Keilley creek some ten miles and northward along Skunk river and Bear creek about the same distance from their confluence. In a marginal zone the water rises nearly to the surface but does not flow from the wells. This is a shallow well area, the depths being about sixty feet.

The reservoir seems to be found in the floodplain gravels of one or more Pre-Wisconsin rivers whose valleys were partly filled with glacial till, tightly **sealing the reservoir**. Much water is being wasted through neglect to provide some of the wells with faucets. Some of the geological relations of the vicinity are also discussed.

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